Amendments to the Claims

Kindly amend claims 1, 7, 10, 11, 17, 19, 22, 28 & 31, and cancel claims 6, 8, 9, 16, 18, 20, 27, 29 & 30 (without prejudice), as set forth below. All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/double brackets (for deleted matter).

1. (Currently Amended) A method comprising:

time division multiplexing (TDM) at least two inter-system channel (ISC) data streams to create a TDM multiplexed data stream; [[and]]

outputting the TDM multiplexed data stream for forwarding across a network;

wherein said time division multiplexing employs a first-in first-out (FIFO) buffer and said method further includes at least one of inserting and deleting words in at least one data stream of said at least two ISC data streams to balance input and output FIFO buffer clocking rates;

wherein the at least two ISC data streams comprise at least some of idle sequences, frame sequences and continuous sequences, and wherein said at least one of inserting and deleting comprises employing a first protocol for idle sequences and frame sequences and a second protocol for continuous sequences within the at least one ISC data stream of the at least two ISC data streams; and

wherein the first protocol comprises:

waiting for a sequence of two idle words, ignoring any null words, and determining whether to insert or delete words from the at least one ISC data stream;

if inserting words, adding two idle words subsequent to the two idle words that were detected, and if deleting words, waiting for a sequence of eight idle words, ignoring any null words between the eight idle words, and removing a desired number of null words which occur between two consecutive idle words, and removing in pairs a desired number of idle words.

2.   (Original) The method of claim 1, further comprising forwarding the TDM multiplexed data stream across a network over a single wavelength.

3.   (Original) The method of claim 2, wherein the network comprises a wavelength division multiplexing (WDM) network.

4.   (Original) The method of claim 3, further comprising wavelength division multiplexing the TDM multiplexed data stream with at least one other data stream onto the single wavelength for forwarding across the WDM network.

5.   (Original) The method of claim 4, wherein the at least one other data stream comprises at least one other TDM multiplexed data stream.

6.   (Canceled).

7.   (Currently Amended) The method of claim [[6]] 1, wherein said at least one of inserting and deleting words maintains disparity balance within each of the at least two ISC data streams.

8.   (Canceled).

9.   (Canceled).

10.   (Currently Amended) The method of claim [[8]] 1, wherein the second protocol comprises:

waiting for a sequence of two continuous word idle word pairs, ignoring any null words;

determining whether to insert or delete words; and

if adding words, adding a continuous word idle word pair replicating the last such pair, and if deleting words, waiting for a sequence of two continuous word idle word pairs, and removing one continuous word idle word pair replicating the detected sequence of continuous word idle word pairs.

11.   (Currently Amended) A system comprising:

        means for time division multiplexing (TDM) at least two inter-system channel (ISC) data streams to create a TDM multiplexed data stream; [[and]]

        means for outputting the TDM multiplexed data stream for forwarding across the network;

        wherein said means for time division multiplexing employs a first-in first-out (FIFO) buffer and said system further includes at least one of means for inserting and means for deleting words in at least one data stream of said at least two ISC data streams to balance input and output FIFO buffer clocking rates;

        wherein the at least two ISC data streams comprise at least some of idle sequences, frame sequences and continuous sequences, and wherein said at least one of means for inserting and means for deleting comprises means for employing a first protocol for idle sequences and frame sequences and a second protocol for continuous sequences within the at least one ISC data stream of the at least two ISC data streams; and

        wherein the second protocol comprises:

            waiting for a sequence of two continuous word idle word pairs, ignoring any null words;

            determining whether to insert or delete words; and

            if adding words, adding a continuous word idle word pair replicating the last such pair, and if deleting words, waiting for a sequence of two continuous word idle word pairs, and removing one continuous word idle word pair replicating the detected sequence of continuous word idle word pairs.

12.   (Original) The system of claim 11, further comprising means for forwarding the TDM multiplexed data stream across a network over a single wavelength.

13.   (Original) The system of claim 12, wherein the network comprises a wavelength division multiplexing (WDM) network.

14.   (Original) The system of claim 13, further comprising means for wavelength division multiplexing the TDM multiplexed data stream with at least one other data stream onto the single wavelength for forwarding across the WDM network.

15.   (Original) The system of claim 14, wherein the at least one other data stream comprises at least one other TDM multiplexed data stream.

16.   (Canceled).

17.   (Currently Amended) The system of claim [[16]] 11, wherein said at least one of means for inserting and means for deleting words maintains disparity balance within each of the at least two ISC data streams.

18.   (Canceled).

19.   (Currently Amended) ~~The system of claim 18,~~ A system comprising:

means for time division multiplexing (TDM) at least two inter-system channel (ISC) data streams to create a TDM multiplexed data stream;

means for outputting the TDM multiplexed data stream for forwarding across the network;

wherein said means for time divisions multiplexing employs a first-in first-out (FIFO) buffer and said system further includes at least one of means for inserting and means for deleting words in at least one data stream of said at least two ISC data streams to balance input and output FIFO buffer clocking rates;

wherein the at least two ISC data streams comprise at least some of idle sequences, frame sequences and continuous sequences, and wherein said at least one means for inserting and means for deleting comprise means for employing a first protocol for idle sequences and frame sequences and a second protocol for continuous sequences within the at least one ISC data stream of the at least two ISC data streams; and

wherein the first protocol comprises:

waiting for a sequence of two idle words, ignoring any null words, and determining whether to insert or delete words from the at least one ISC data stream;

if inserting words, adding two idle words subsequent to the two idle words that were detected, and if deleting words, waiting for a sequence of eight idle words, ignoring any null words between the eight idle words, and removing a desired number of null words which occur between two consecutive idle words, and removing in pairs a desired number of idle words.

20.   (Canceled).

21.   (Canceled).

22.   (Currently Amended) At least one program storage device readable by a machine, embodying at least one program of instructions executable by the machine to perform a method, said method comprising:

time division multiplexing (TDM) at least two inter-system channel (ISC) data streams to create a TDM multiplexed data stream; [[and]]

outputting the TDM multiplexed data stream for forwarding across the network;

wherein said time division multiplexing employs a first-in first-out (FIFO) buffer and said method further includes at least one of inserting and deleting words in at least one data stream of said at least two ISC data streams to balance input and output FIFO buffer clocking rates;

wherein the at least two ISC data streams comprise at least some of idle sequences, frame sequences and continuous sequences, and wherein said at least one of inserting and deleting comprises employing a first protocol for idle sequences and frame sequences and a second protocol for continuous sequences within the at least one ISC data stream of the at least two ISC data streams; and

wherein the first protocol comprises:

    waiting for a sequence of two idle words, ignoring any null words, and determining whether to insert or delete words from the at least one ISC data stream;

    if inserting words, adding two idle words subsequent to the two idle words that were detected, and if deleting words, waiting for a sequence of eight idle words, ignoring any null words between the eight idle words, and removing a desired number of null words which occur between two consecutive idle words, and removing in pairs a desired number of idle words.

23.   (Original) The at least one program storage device of claim 22, further comprising forwarding the TDM multiplexed data stream across a network over a single wavelength.

24.   (Original) The at least one program storage device of claim 23, wherein the network comprises a wavelength division multiplexing (WDM) network.

25.   (Original) The at least one program storage device of claim 24, further comprising wavelength division multiplexing the TDM multiplexed data stream with at least one other data stream onto the single wavelength for forwarding across the WDM network.

26.   (Original) The at least one program storage device of claim 25, wherein the at least one other data stream comprises at least one other TDM multiplexed data stream.

27.   (Canceled).

28.   (Currently Amended) The at least one program storage device of claim [[27]] 22, wherein said at least one of inserting and deleting words maintains disparity balance within each of the at least two ISC data streams.

29.   (Canceled).

30.   (Canceled).

31.   (Currently Amended) The at least one program storage device of claim [[29]] 22, wherein the second protocol comprises:

waiting for a sequence of two continuous word idle word pairs, ignoring any null words;

determining whether to insert or delete words; and

if adding words, adding a continuous word idle word pair replicating the last such pair, and if deleting words, waiting for a sequence of two continuous word idle word pairs, and removing one continuous word idle word pair replicating the detected sequence of continuous word idle word pairs.

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